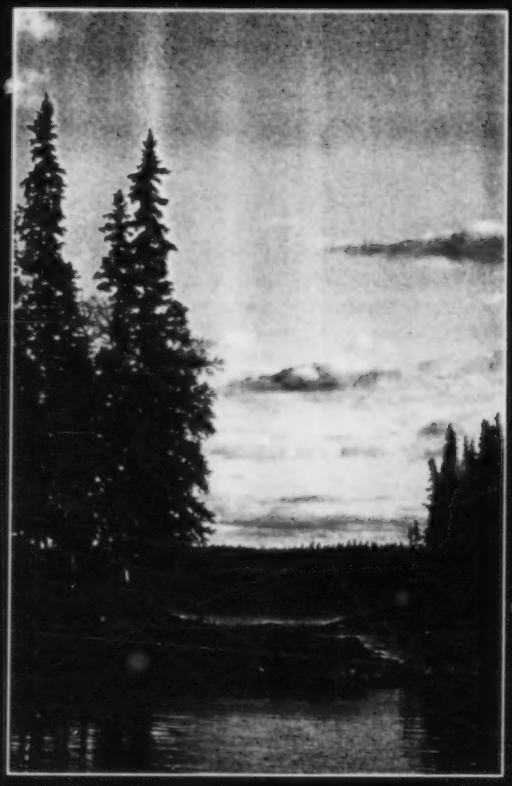
Annual Report
2003 - 2004

The Clean Environment Commission



Manitoba

105-05241/

MINISTER OF CONSERVATION

Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

His Honour
The Honourable John Harvard, C. M., O. M.
Lieutenant-Governor of Manitoba
Room 235 Legislative Building
Winnipeg, Manitoba
R3C 0V8

Your Honour:

The undersigned has the honour to present the Annual Report of the Clean Environment Commission detailing its activities for the fiscal year ending March 31, 2004.

Sincerely,

Stan Struthers

Stan Struthers
Minister

Manitoba

Office of the Chairperson
Clean Environment
Commission

305 - 155 Carlton Street
Winnipeg, Manitoba,
CANADA
R3C 3H8

The Honourable Stan Struthers
Minister of Conservation
Room 333 Legislative Building
Winnipeg, Manitoba
R3C 0V8

Dear Mr. Struthers:

Pursuant to the provisions of Section 6(10) of *The Environment Act* I am pleased to submit to you the Commission's annual report for the year ending March 31, 2004.

Submitted on behalf of the Commission.

Terry Sargeant
Chair

The Manitoba Clean Environment Commission

During the 2003-04 year, Commission membership consisted of the following citizen appointees and full-time chairperson. The Minister responsible for *The Environment Act* for the period under review was the Honourable Steve Ashton.

Nick Carter
[until January 2004]
Lissa Donner
Terry Duguid, Chair
[until December 2003]
Kenneth Gibbons
Ian Halket
Judy Head
John Hreno
Gerard Lecuyer
Wayne Motheral
[Appt. January 2004]
Harvey Nepinak
[Appt. January 2004]
Moses Okimaw
[until January 2004]
Archie Phillips
[until January 2004]
Constance Pringle
Terry Sargeant, Chair
[Appt. January 2004]
Wayne Sato
Myrle Traverse
Ken Wait
Barrie Webster
John Whitaker
[until January 2004]

Role and Responsibilities

Under *The Environment Act* (1988) the Clean Environment Commission provides a forum through which the public can participate in the environmental decision making process in Manitoba. The Commission also provides advice and recommendations to the provincial Conservation Minister with respect to environmental issues and licensing matters.

Commission membership includes a full-time Chairperson and part-time Commissioners appointed by Order-in Council. Members come from a wide variety of occupations and reside in different regions of the province.

The Commission utilizes the following mechanisms to assist in the environmental management process:

Public Hearings

During the environmental assessment process, the public is invited to submit comments and/or objections respecting a proposed development project. In response to valid concerns, the Conservation Minister can ask the Clean Environment Commission to convene a public hearing. During such a hearing, the Commission would receive representations from the project proponent, the general public - both supporters and opponents, and from the various government departments responsible for reviewing the proposal. The Commission reviews the evidence and information presented at the hearing and prepares a report containing advice and recommendations for the Minister. Upon receipt of the Commission's report, the Minister may choose to accept all or part of its recommendations, but is under no legal obligation to do so. If, however, the Commission's recommendations are not acted upon, or incorporated into the licence under review, written reasons must be provided by the Minister or the Environment Department and these must be filed in the Public Registry.

Environmental Mediation

Conflicts can occur when two opposing but environmentally sound ideas are proposed for the same location or resource. Where all parties agree, the Commission can provide environmental mediation services to resolve these conflicts.

Investigations

The Environment Act allows the Commission to investigate any matter of environmental concern and to provide advice and recommendations to the Conservation Minister.

Message from the Chairman

The past year has been one of significant change for the Commission. In December 2003, Terry Duguid resigned as Chair to pursue other career goals. In January 2004, I was appointed as his replacement.

Terry had been with the Commission for 3 ½ years and had overseen the revitalization of the Commission. Under his direction, the Commission became a much more active body, undertaking increasingly complex environmental reviews, as well as fulfilling its legislated mandate by offering educational forums on matters of ecological importance to the province and by engaging in mediated resolution to certain matters. The Commission – and the province – are indebted to Terry for his dedication during his tenure and wish him well in his future endeavours.

The terms of four members of the Commission came to an end last year – Nick Carter, Moses Okimaw, Archie Phillips and John Whitaker. Together, they had devoted a number of years of service to the Commission. I would like to extend to them the Commission's gratitude for this commitment.

In January, two new members were appointed to the Commission: Wayne Motheral of Morden and Harvey Nepinak of Dauphin. Last year also saw the cross-appointment of two members of the Public Utilities Board, to sit on the Wuskwatim Projects panel: Kathi Avery Kinew, Winnipeg, and Robert Mayer, Thompson.

The final change came with the retirement of Jim Potton from the Commission staff. Jim, for many years the technical advisor to the Commission, will be missed.

With Terry Duguid's resignation, the minister asked Gerard Lecuyer to assume the chair of the Wuskwatim panel. This panel oversaw a lot of preparatory work throughout the year, including two rounds of information requests and a few pre-hearing meetings of all the participants. The public hearing process commenced at the beginning of March and continued into the new fiscal year. A full report of this review will be included in next year's annual report.

In addition to the Wuskwatim preparations, the Commission concluded three review processes last year. One was a review of the City of Winnipeg's Wastewater Collection and Treatment System, with an interim report being tabled in April 2003 and the final report in August 2003. The second involved a proposed expansion to the City of Brandon Industrial Wastewater Treatment Facility and the concomitant proposal to alter the Maple Leaf Foods Hog Processing Plant. This report was concluded in October 2003. The third review involved a proposed Water/Sewer Infrastructure Project for the R. M. of Brokenhead, with the report coming out in December 2003. These reviews are described in more detail later in this annual report.

As the reporting period ended, the Commission was looking forward to a number of months of hearings and deliberations in respect of the Wuskwatim review. As well, the Commission had received a reference from the minister to conduct hearings on the proposed expansion of the Winnipeg Floodway.

So ... as one busy year moved into another, I looked forward to the challenges of maintaining the high standards of the Clean Environment Commission.

Terry Sargeant

Hearings

City of Winnipeg Wastewater Collection and Treatment System

At the request of Manitoba's Minister of Conservation, the Clean Environment Commission (CEC) conducted public hearings on the City of Winnipeg's wastewater collection and treatment systems. The hearings were called partly in response to a spill of raw sewage from Winnipeg's North End Water Pollution Control Centre into the Red River that lasted from September 16 to 19, 2002.

The mandate given to the Commission was to review the City's wastewater collection and treatment systems and related public concerns, and to provide a report to the Minister with advice and recommendations.

The Commission conducted hearings in Winnipeg from January 20 to 23, 2003 and in Selkirk on January 27 and 28, 2003.

Over 750 members of the public attended the hearings in Winnipeg and Selkirk. The four-member Panel heard presentations from Manitoba Conservation, the City of Winnipeg, the Department of Fisheries and Oceans, and Environment Canada, as well as groups that received participant funding assistance. Written and oral presentations were also received from 28 other organizations and individuals. The Commission registered a total of 126 exhibits during the nine days of hearings.

Two motions were tabled on January 21, 2003 that called for suspension of the proceedings, further public review and preparation of an Environmental Impact Statement. On January 28, 2003 in response to the

motions, the panel requested that the City submit an Environmental Impact Statement to assist in its review. The federal Minister of Environment was also requested to provide a report by March 10, 2003 on the status of their investigation into the sewage spill. The panel further advised that an interim report on the September 16, 2002 sewage spill would be filed with the Minister of Conservation on or before April 1, 2003 and that the public hearings would reconvene in April, 2003.

The City of Winnipeg submitted its Environmental Impact Statement on February 28, 2003 and, following filing of the Commission's interim report, the hearing was reconvened in Winnipeg from April 14 to 16, 2003.

The Interim Report – 'Sewage Spill'

During the course of the January hearings, the Commissioners heard a number of concerns from members of the public regarding the September 16, 2002 spill of raw sewage into the Red River. Those concerns related to the effects of the spill on human health, water quality, aquatic biota, Netley-Libau Marsh and Lake Winnipeg. Some downstream residents and resource users testified that they were also concerned about the effects of combined sewer overflows and other releases of raw sewage. They demanded that measures be taken immediately to prevent the occurrence of sewage spills in the future. The Commissioners also heard presentations about proposed risk and criticality assessments, environmental management systems, emergency response plans and public notification systems, as well as the need to train and certify plant operators, and put in place written operating procedures.

The Commission also reviewed reports on the September 16, 2002 spill prepared by Manitoba Conservation, the City of Winnipeg and Associated Engineering. These reports concluded that the spill occurred following a shutdown of the North End Water Pollution Control Center that was caused by the flooding of pump wells. The flooding was attributed to inadequate operating and maintenance procedures. Information from an ongoing investigation of the sewage spill by Environment Canada was not available to the Commission.

The Commission concluded that, while the Pollution Prevention Plan being proposed by the City of Winnipeg is a positive step forward, an Environmental Management System following the ISO 14001 Standard is required for the City's three Water Pollution Control Centres to provide greater assurance that future sewage spills will be prevented.

In summary, the Commission recommended that the Water and Waste Department:

- Immediately begin to develop and implement an Environmental Management System (EMS) for the City of Winnipeg's wastewater treatment facilities. The EMS is to be completed within two years, with major components implemented much sooner.
- Undertake risk and criticality assessments of the City's wastewater treatment facilities within one year.
- Begin immediately to prepare and implement a training plan for all wastewater treatment facility staff within one year.

- Prepare and implement standard operating and safe work procedures for the City's wastewater treatment facilities within six months.
- Give immediate priority to the preparation of emergency response plans for the City's wastewater treatment facilities. The plans are to be completed and approved by Manitoba Conservation within six months.
- Develop and implement a notification system to inform the public whenever there is release of raw sewage into the Red and Assiniboine rivers whether it is an accidental release, combined sewer overflow or sanitary sewer malfunction. The notification system is to be fully operational for the 2004 summer recreation season.

The Final Report – 'Taking Action to Improve Water Quality'

In response to recommendations in the Commission's 1992 public hearing report on water quality objectives and to direction provided by Manitoba Conservation, the City of Winnipeg proposed a 50-year pollution prevention plan to achieve Manitoba's *Water Quality Standards, Objectives and Guidelines*. The plan components included effluent disinfection, combined sewer overflow control, ammonia treatment, nutrient reduction, and biosolids (solid by-product of wastewater treatment) management.

The City's Environmental Impact Statement also provided information on potential environmental effects of plan components, proposed measures to mitigate adverse effects and assessed the significance of residual environmental effects.

During the course of the hearing, the Commissioners heard a large number of concerns from individuals, environmental organizations, funded participants, and local and federal government officials. The concerns related to the impact of the spill of raw sewage on the environment and human health; effects of treated wastewaters and untreated sewer overflows on the Red and Assiniboine rivers; effects of nutrients and other substances on Lake Winnipeg; disposal of landfill leachate; training and certification of operators; standard operating procedures; emergency response plans; environmental management systems; consultation with the public and Aboriginal communities; and others.

The Commission believes there is evidence to substantiate that Winnipeg's treated municipal wastewaters and untreated combined sewer overflows are adversely impacting the aquatic environments of the Red and Assiniboine rivers and Lake Winnipeg. While the Commission understands that Winnipeg is not the only contributor of pollutants to the Red and Assiniboine rivers or nutrients to Lake Winnipeg, the City's wastewater treatment plants and combined sewer outfalls are point sources that can be controlled. This provides the City of Winnipeg with an opportunity to take responsible action and demonstrate environmental stewardship for the benefit of all Manitobans.

The Commission is confident that, with Winnipeg's commitment to implement recommendations outlined in various investigative reports presented during the hearing and those in the Commission's interim report, the risk of future releases of raw sewage into the Red River from the North End Water Pollution Control Centre will be minimized. The Commission remains optimistic that reductions in the frequency,

duration and magnitude of combined sewer overflows can be reduced to acceptable levels within a much shorter timeframe than that proposed by the City.

Furthermore, the Commission believes that meaningful progress on effective management and mitigation of combined sewer overflows can be achieved within two years.

The Commission concluded that if *Environment Act* licences are issued for Winnipeg's three water pollution control centres, they should be granted on an 'interim' basis only, with a major public review on the City's evolving plan within two years. Many of the recommendations in this report can be implemented before then. The review should be conducted by the Commission based on detailed *Environment Act* licence proposals and an Environmental Impact Statement prepared in accordance with publicly reviewed guidelines issued by Manitoba Conservation. Subsequently, the Commission believes that it should be called upon to review the licences every three years until such time as the City has achieved significant, measurable progress toward completing its long-term plan. In summary, the Commission presented the following twenty recommendations:

Wastewater Treatment Plant Licencing

1. If Environment Act licences are issued for Winnipeg's three water pollution control centres, these licences should be issued on an 'interim' basis only.

2. The 'interim' Environment Act licences for Winnipeg's three water pollution control centres should be reviewed again in two years and every three years thereafter.

3. Manitoba Conservation should establish 'interim' effluent limits for Winnipeg's three water pollution control centres in accordance with Manitoba's Water Quality Standards, Objectives and Guidelines.

Environmental Impact Statement

4. The City of Winnipeg should be directed to prepare a comprehensive Environmental Impact Statement prior to the review of its three water pollution control centre 'interim' Environment Act licenses.

Nutrient Management Strategy

5. Manitoba Conservation should accelerate the schedule to complete the Nutrient Management Strategy for Southern Manitoba by December 2004.

6. The City of Winnipeg should be directed to plan for the removal of nitrogen and phosphorus from its municipal wastewaters, and to take immediate steps in support of the nutrient reduction targets established for Lake Winnipeg. The City's nutrient removal plan should be a key element of a licence review hearing to be scheduled within two years.

Combined Sewer Overflow Reduction

7. The City of Winnipeg should be directed to shorten the timeframe to complete its combined sewer overflow plan from the proposed 50 years to a 20 to 25-year period.

8. The City of Winnipeg should be directed to take immediate action to reduce combined sewer overflows

by instrumenting outfalls, adjusting weirs, accelerating combined sewer replacement, advancing the pilot retention project and undertaking other reasonable measures to reduce combined sewer overflows within two years.

Public Notification System

9. The City of Winnipeg should be directed to develop and implement a notification system to inform the public whenever there is a release of raw sewage from any source into the Red and/or Assiniboine rivers. This public notification system should be operational by the beginning of the 2004 summer recreation season.

Wastewater Treatment System

10. The City of Winnipeg should be directed to proceed with disinfection of wastewaters at the North End Water Pollution Control Centre without delay, and should routinely test for pathogens in all wastewater discharges.

11. The City of Winnipeg should be directed to complete risk and criticality assessments at Winnipeg's three water pollution control centres by April 2004 and implement recommendations arising from such assessments to minimize the risk of future spills of untreated sewage.

12. The City of Winnipeg should be directed to increase the number of parameters measured in ts influent and effluent streams to include contaminants of concern such as heavy metals, organochlorines, endocrine disrupting substances and pharmaceuticals.

13. The City of Winnipeg should be directed to implement changes to Winnipeg's Sewer By-Law that would expand the list of restricted substances, prevent disposal of contaminants of concern, encourage treatment at source, improve enforcement of the By-Law and increase penalties for violations.

14. The City of Winnipeg should be directed to stop the practice of disposing of landfill leachate at its water pollution control centres within a period of eighteen months.

Financial Support

15. The City of Winnipeg should be directly assisted by the Province of Manitoba in efforts to secure financial support under existing and future infrastructure programs for upgrades to its wastewater collection and treatment systems.

Environmental Management System

16. The City of Winnipeg should be directed to immediately begin development and implementation of an Environmental Management System for Winnipeg's three water pollution control centres with a completion date of no later than April 2005 with major components of the management system implemented much sooner.

Public Education

17. The City of Winnipeg should be strongly encouraged to develop and implement a permanent public education program to improve awareness of Winnipeg's wastewater collection and treatment systems, and to foster public involvement in activities focusing on water conservation and pollution prevention at source.

Public Consultation

18. The City of Winnipeg should be directed to prepare a public consultation plan for Winnipeg's wastewater collection and treatment systems for approval by Manitoba Conservation by April 2004.

Aboriginal Consultation

19. The City of Winnipeg should be encouraged and assisted by the Province, in cooperation with the federal government, to immediately begin developing and implementing a meaningful consultation program with Aboriginal communities concerning the continued operation and future development of its wastewater collection and treatment systems.

Environmental Research and Monitoring

20. A cooperative, cost-shared environmental research and monitoring program involving the City of Winnipeg, Province of Manitoba and the federal government should be established for the Red and Assiniboine rivers and Lake Winnipeg.

City of Brandon Industrial Wastewater Treatment Facility Expansion and Maple Leaf Foods Inc. Hog Processing Plant Alteration

The City of Brandon received an *Environment Act* licence in 1999 for an Industrial Wastewater Treatment Facility dedicated to the Maple Leaf Foods Inc. hog processing plant. In addition, the City of Brandon was licenced in 2001 to apply biosolids from the facility's anaerobic basin to agricultural land. Concurrently, Maple Leaf Foods was licenced to operate its hog processing plant adjacent to Brandon's treatment facility. Maple Leaf's licence provided for two shifts per day, but the plant was restricted to one shift per day until the City of Brandon received a licence authorising its facility to accept wastewater generated by the second shift.

On March 19, 2003, Manitoba Conservation received an *Environment Act* proposal from the City of Brandon for alterations to its existing Industrial Wastewater Treatment Facility and a Notice of Alteration from Maple Leaf Foods for modifications to its existing hog processing plant in Brandon. Both proposals were submitted to facilitate a two-shift-per-day operation of the hog processing plant. On March 24, 2003, the Manitoba Minister of Conservation referred the Maple Leaf Foods and City of Brandon proposals to the Manitoba Clean Environment Commission. The Minister also established a $50,000 Participant Assistance Program for the hearing and called for applications by April 21, 2003.

The mandate given to the Commission was to conduct a public hearing on the proposals, receive public comments and concerns, and provide a report with advice and recommendations to the Minister.

The Commission conducted hearings in Brandon on June 25, 26 and 27, 2003 and on July 15 and 16, 2003. Opening arguments by Manitoba Conservation, the proponents (Maple Leaf Foods and the City of Brandon) and the Westman Community Action Coalition on interpretation of the *Terms of Reference* were heard. The Commission decided on June 26, 2003 to allow evidence and cross-examination respecting the impact of hog production in Manitoba as it related to the proposed development. (A motion tabled by the funded participant group on June 26, 2003 calling for a suspension of the hearings until information was provided on a socioeconomic impact assessment, an instream flow model for the Assiniboine River and the impact of hog production in Manitoba was dismissed on June 27, 2003.)

About 120 members of the public including private citizens, business owners, governmentworkers, consultants, environmental practitioners and students attended the hearings in Brandon. The Commission heard presentations and statements from Maple Leaf Foods, the City of Brandon, Manitoba Departments of Conservation, Agriculture and Intergovernmental Affairs, and Environment Canada, as well as the funded participant group. Written and oral presentations were also received from 11 other organizations and individuals. The Commission registered a total of 95 exhibits during the five days of hearings.

During the course of the hearing, the Commission heard a variety of concerns from individuals, organizations, funded participants, and local and federal government representatives regarding the Maple Leaf Foods and City of Brandon proposals. The concerns related to wastewater treatment

technology, biophysical and socio-economic impacts, groundwater contamination, greenhouse gas emissions, water use, effluent quality, receiving water quality, biosolids and manure spreading, parasites and pathogens, drug and hormone use, in-stream flow requirements, cumulative impact, sustainability, regulatory process, environmental management systems, plant worker health and safety, family farm and rural lifestyle issues and others.

Common themes presented during the proceedings included availability of study and monitoring results, assimilative capacity of the Assiniboine River, sustainability of hog production, regulation of hog production operations and environmental management systems.

Based on the evidence presented during the hearing, the Commission determined that the proposal by Maple Leaf Foods and the City of Brandon to expand the capacity of the Industrial Wastewater Treatment Facility would not likely result in significant additional biophysical impact on the local environment and, due to lower nutrient concentrations in the effluent, would improve the downstream river environment.

The Commission observed that the results of the pilot tests carried out by Zenon Environmental Inc. indicate the proposed expansion can achieve lower effluent nutrient concentrations than would otherwise be required to meet the Manitoba Conservation criteria of "no net increase" in nutrient loading to the Assiniboine River. The Commission concluded that licence terms and conditions should reflect effluent nutrient concentrations attained during pilot testing. It was also concluded that the City of Brandon should obtain a performance guarantee or

bond from the supplier of the membrane system to protect taxpayers against additional costs.

The Commission was not convinced one way or the other about the sustainability of hog production in Manitoba in relation to the Maple Leaf Foods hog processing plant based on evidence presented during the hearing. However, the Commission acknowledged that Elite Swine Inc., a subsidiary of Maple Leaf Foods, is continuing to incorporate procedures that appear to make large-scale hog production in the province more sustainable.

The matter of sustainability was not addressed satisfactorily by the cumulative effects assessment and the sustainability analysis in the proponent's Environmental Impact Assessment documents. Consequently, the Commission determined that Manitoba Conservation in cooperation with Manitoba Agriculture and Food, the Prairie Farm Rehabilitation Administration, the Manitoba Pork Council, local and Aboriginal communities, non-government organizations and universities should undertake a study on the sustainability of hog production in the Assiniboine River basin. The Commission also determined that the study should be based on currently available information, but acknowledges that new data may be required to investigate nutrient levels in surface and ground waters emanating from large-scale hog production operations.

The Commission observed that Manitoba Conservation, Maple Leaf Foods, Elite Swine and the City of Brandon appeared to possess basic environmental information from their respective monitoring programs, although that information was generally not available to the public. Also, adequate information on upstream and Brandon area nutrient sources, and results from the Assiniboine

River in-stream flow requirements study was not provided during the hearing. The Commission determined that research and monitoring information should be compiled, reported on annually, and made available to the public so that it can be used for ongoing planning, management and decision-making. The Commission also determined that the number of parameters routinely measured by surface water, groundwater and soil monitoring programs should be increased to include such parameters as conductivity, heavy metals, parasites and pathogens (e.g. Cryptosporidium, Giardia and E. coli), organochlorines, pharmaceuticals and other parameters determined to be of concern through periodic screening.

The Commission viewed the implementation of ISO 14001-certified Environmental Management Systems by Maple Leaf Foods and the City of Brandon as effective means of achieving a higher degree of environmental and human health protection in Manitoba. Extension of Environmental Management Systems by Maple Leaf Foods to regional hog production operations, activities and suppliers under their control will broaden the coverage of this protection. The Commission believes that these management systems will serve to "raise the bar" for other livestock production operations in the province.

The Commission concluded that the Director, Environmental Approvals Branch may issue revised *Environment Act* licences to Maple Leaf Foods for alterations to its hog processing plant and to the City of Brandon for an expansion to its Industrial Wastewater Treatment Facility subject to terms and conditions consistent with the recommendations outlined in this report.

In summary, the Commission presented the following 13 recommendations:

A. Licencing

1. Manitoba Conservation should issue *Environment Act* licences to Maple Leaf Foods for an alteration to its Brandon hog processing plant and the City of Brandon for an expansion of its Industrial Wastewater Treatment Facility. The licences should be reviewed by Manitoba Conservation one year after the expanded wastewater treatment facility is put into operation for adherence to the terms and conditions.

B. Licence Terms and Conditions

2. The licence limits for nutrients in the effluent from the City of Brandon Industrial Wastewater Treatment Facility should be set at 1 milligram per Litre for total phosphorus and less than 10 milligrams per Litre for total nitrogen for the entire year.

3. The licence for the City of Brandon Industrial Wastewater Treatment Facility should include a requirement for the City of Brandon to secure a performance guarantee and letter of credit or bond from the supplier of the treatment system to ensure that effluent limits are achieved and Brandon and Manitoba taxpayers are protected.

4. Maple Leaf Foods and the City of Brandon should be required to immediately begin development and implementation of ISO 14001-certified Environmental Management Systems for their respective hog processing and industrial wastewater treatment facilities, and complete their Environmental Management Systems by December 2005.

5. Maple Leaf Foods should require Environmental Management Systems consistent with the ISO 14001 Standard for hog production operations in Manitoba under its control by December 2005 and should encourage Environmental Management Systems for its suppliers.

6. Within 12 months of receiving Environment Act Licences, both Maple Leaf Foods and the City of Brandon should be required to complete water audits of their respective hog processing and industrial wastewater treatment facilities, and prepare water conservation plans with strategies and targets for reducing water use.

7. Maple Leaf Foods and the City of Brandon should be required to conduct quarterly groundwater monitoring at high risk locations adjacent to their respective hog processing and industrial wastewater treatment facilities.

8. The City of Brandon should be required to prepare sludge management plans for the land application of biosolids from its Industrial Wastewater Treatment Facility. The management plans should be updated annually, audited on a routine basis and be made accessible to the public.

9. Within 12 months of receiving Environment Act Licences, both Maple Leaf Foods and the City of Brandon should be required to complete greenhouse gas inventories of their respective hog processing and industrial wastewater treatment facilities and prepare greenhouse gas management plans with reduction strategies and targets.

10. The City of Brandon should be required to increase the number of parameters measured in effluent from the Industrial Wastewater Treatment Facility to include conductivity, heavy metals, parasites and pathogens *(e.g. Cryptosporidium, Giardia and E. coli)*, organochlorines, pharmaceuticals and other parameters determined to be of concern from periodic effluent screening.

C. Other Matters

11. Manitoba Conservation, in cooperation with Manitoba Agriculture and Food, the Prairie Farm Rehabilitation Administration, the Manitoba Pork Council, local and Aboriginal communities, non-government organizations and universities should oversee a study to examine the sustainability of hog production in the Assiniboine River basin, develop sustainability indicators, and report to Manitobans by December 2005 with an interim report due December 2004.

12. Manitoba Conservation should establish additional monitoring stations along the Assiniboine River to ensure that adequate water quality data are available for planning and management decisions in the basin.

13. Manitoba Conservation should be directed to complete and report on the Assiniboine River in-stream flow requirement study by March 2004. Consideration should be given to the establishment of a cooperative watershed planning initiative to provide long-term environmental stewardship for the Assiniboine River basin.

Rural Municipality of Brokenhead Water/Sewer Infrastructure Project

In July 2000, the residents of the village of Garson and of the Rural Municipality (RM) of Brokenhead were served with a boil-water advisory. Tests had shown that water wells were contaminated, presumably by malfunctioning septic tanks, septic fields, and holding tanks. Further, the capacity of the lagoon situated northwest of the unincorporated community of Tyndall had been exceeded. Officials of the municipality engaged the services of the engineering firm, I.E. Cowan Consultants Ltd., to assess the situation and prepare a preliminary design for a combined water and wastewater system for the communities of Garson, Gravelville, and Tyndall. The RM of Brokenhead (The Proponent) called public meetings to discuss the financial aspects of the proposed project. Many residents of the municipality at large were deeply concerned with various aspects of the proposal, but were not allowed to raise their concerns at the public meeting.

Some of the concerns raised by the residents had also been raised by members of the provincial Technical Advisory Committee (TAC) and by members of the federal review committee. Among these concerns were the proximity of the proposed lagoon to Devil's Creek, the siting of the well, and the routing of the forcemain within the Devil's Creek riparian zone.

Unable to obtain satisfactory answers, concerned residents called on the province to hold consultation meetings or a hearing. The Minister of Conservation subsequently called upon the Clean Environment Commission (CEC) to hold a hearing and the hearing took place in Garson on June 19 & 20, 2003, continuing on August 18 & 19.

The Proponent proposed a central well located at Gravelville from which water would be piped to all three communities. Likewise, it proposed a central sewage treatment system consisting of a lagoon designed to handle wastewater at standard urban water consumption rates (360 L per person per day) for the next 20 years. The proposed system was to be situated adjacent to Devil's Creek and just beyond a 300-metre buffer from several rural homeowners outside the communities but within the RM of Brokenhead and the neighbouring RM of St. Clements. The plan proposed that the forcemain be routed to the lagoon via the riparian zone of Devil's Creek. The proposal was consistent with current practice and did not include any option for ultimate treatment of the wastewater.

Based on the information presented at the hearing, the Panel determined that alternative sites for the lagoon were not adequately evaluated and shares the concerns of residents, the TAC, and the federal review committee regarding the routing of the forcemain within the riparian zone of Devil's Creek. In addition, the proposed site for the community well was not optimized for water quality considerations.

Little information was presented to the public at the hearing about the extent and quality of the water resource outside the immediate area chosen. Nor was any analysis provided of the potential cost benefits to be derived from the use of a less sophisticated treatment technology.

Accordingly, while the Commission recommended that an Environment Act Licence be issued to the RM of Brokenhead for a water/wastewater infrastructure project, a number of conditions were stipulated under which the licence should be granted.

- The community well should be sited to optimize raw water quality and diminish the need for the use of sophisticated treatment technology.

- The new community sewage system based on lagoon technology should either expand the existing site to the west or expand the proposed site to the east, incorporating at least a 30-metre buffer zone between the toe of the lagoon dike and the boundary of the riparian zone of Devil's Creek.

- Forcemains should not be routed within the Devil's Creek riparian zone.

- To meet the requirements of the provincial *Principles and Guidelines of Sustainable Development*, tertiary treatment of the wastewater should be mandated within a designated timeline, and the size of the overall system should be designed to incorporate water conservation technologies at the household level (e.g., low-volume flush toilets) to enable the residents to continue their water conservation ethic while reducing the overall quantity of water required for everyday life.

- Finally, to deal with the groundwater contamination problem at source and to minimize the overall cost to individual homeowners, the Commission recommended that a gravity system be given full life-cycle evaluation. The proposed low-pressure system retains several components of the existing system that are the cause of the groundwater contamination problem and also requires that the homeowner pay a substantial individual hook-up cost in addition to paying for the installation of the centralized system through increased taxation.

The Commission was sensitive to the hardships experienced by the citizens living under the boil-water advisory and recommended that a license be issued in a timely manner, but within the conditions recommended in their report. The recommendations were formulated to provide an enduring solution to the problem and to be consistent with the *Manitoba Nutrient Management Strategy*, the *Lake Winnipeg Action Plan*, the *Manitoba Water Strategy*, and the *Principles and Guidelines of Sustainable Development*.

Wuskwatim Generating and Transmission Project

During the 2003-04 fiscal year, the Commission conducted one additional public hearing respecting the Wuskwatim Generating Station and Transmission Project, as proposed by Manitoba Hydro and the Nisichawayasihk Cree Nation. While this hearing was convened in March 2004, it was not completed, nor were the recommendations emanating from the proceedings conveyed to the Minister of Conservation, during the 2003-04 reporting year. Accordingly, the details and results of this hearing will be provided in subsequent reports of this series.

Investigations

The Commission did not undertake any "Investigations", as defined under Section 6(5)(c) of the Environment Act, during the 2003/04 fiscal year.

Environmental Mediation

The Commission did not undertake any "Mediations", as defined under Section 6(5)(d) of the Environment Act, during the 2003/04 fiscal year.

Clean Environment Commission Publications

Preliminary Report on Contamination of Underground Water Sources by Refined Petroleum Products (1975)

Report on the Investigation of the Pollution of Underground Water by Refined Petroleum Products (1975)

Report on the Investigation of Smoke Problems Encountered in Southern Manitoba in 1976 (1977)

Report on an Investigation of Intensive Livestock Production Operations in Manitoba (1979)

Report on a Proposal Concerning Surface Water Quality Objectives and Stream Classification for the Province of Manitoba (1979)

Report on a Proposal for the Classification of Manitoba's Surface Water Souris River Principal Watershed Division (1980)

Report on Red River Waters (Proposed Classification of Surface Water Quality In Manitoba's Red River Principal Watershed Division and Certain Red River Tributaries) (1980)

Report on Proposed Classification of Surface Water Quality in Manitoba's Grass-Burntwood Rivers Principal Watershed Division (1981)

Report on a Proposal for the Classification of Manitoba's Surface Water Red River Principal Watershed Division (1981)

Report on a Proposal for the Classification of Manitoba's Surface Water Grass-Burntwood Rivers Principal Watershed Division (1982)

Report on Mosquito Control Programs in Manitoba (1982)

Report on Environmental Land Use Conflict - Balmoral, Manitoba (1983)

Report on Hazardous and Special Wastes Stage 1 of Phase 1 of Program (1983 & 1984)

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NOTE: Copies of all Commission reports are available from the Commission office upon request